

BOOK REVIEWS

Franz Bauer: the painted record of nature. H. W. Lack. Vienna: Naturhistorisches Museum Wien. 2008. 130 pp., 58 col., 1 b/w plates. ISBN 978 3 902421 30 2. €35. doi:10.1017/S0960428609000067

In his classic *Art of Botanical Illustration* Wilfred Blunt wrote:

It must, perhaps, for ever remain an open question as to who was the greatest botanical artist of all time, though I myself would unhesitatingly give first place to Francis [né Franz] Bauer.

From such an authority this is praise indeed, yet, despite this, Francis (1758–1840) is even less well known than his younger brother Ferdinand (1760–1826). Hans Walter Lack has contributed hugely to rectifying the neglect of both brothers, though, in the case of Francis, up until now only in scattered places, some inaccessible to non-readers of German. The present volume is therefore an important addition both to the literature of botanical illustration, and to the contribution of art to science. That the volume is a thin one is because, sadly, biographical details are scanty. But what there are have been exhaustively sought out by Lack, with his great advantages of knowledge of what, from a British perspective, seem remote central European sources. The work was originally to have been a companion to the handsomely produced one on Ferdinand by David Mabberley jointly published by the London Natural History Museum and Merrill Holberton in 1999. Sadly this series was discontinued, but the Vienna Natural History Museum has done a more than adequate job with the present volume, allowing a generous allocation of 58 colour plates. The typography and certainly the ‘packaging’ may not be as fine but the plates, printed on glossy paper, are superb and distinctly clearer than on the matte surface of the work on Ferdinand. To take just three of the illustrations as examples covering the range of Francis Bauer’s *oeuvre*, one might cite the portrait of the moutan peony (a descendant of the original introduction still grows at the Royal Botanic Garden Edinburgh); the breathtakingly three-dimensional cross-section of the ovary of the orchid *Bletia purpurea*; and the heart-melting depiction of a human foetus and ovary, the result of a fatal ectopic pregnancy.

The last, representative of Bauer’s superlative anatomical and zoological work, might come as a surprise to botanists, but far more of his work in this field was published as engravings in his lifetime – a result of his collaboration with the shady Sir Everard Home. This gives rise to the most bizarre of the disappointingly few anecdotes: a rider racing on horseback from Richmond Park to Kew Green (where Bauer lived) bearing testicles of fallow buck, the sensitive organs clasped to ‘his bossom [sic], wrapped up in warm flannel’. The hope was to observe and record sperm, but, like much of the other anatomical work, and despite Bauer’s outstanding

microscopical skills, it was foiled not only by optical limitations, but by the poor fixation and staining techniques of the time.

The story of Francis's life is clearly and succinctly told by Lack: from his days as a precocious teenager painting, with his brothers, for the 'Codex Liechtenstein', followed by a little-documented period working, again with Ferdinand, for Nikolaus von Jacquin in Vienna where the brothers both learned to etch. Lack aptly compares the exquisite draughtsmanship and precocity of the brothers with the music of Mozart, whom they could well have met in the Jacquin household. Bauer accompanied Jacquin's son on a tour of northern Europe, ending up in London in 1788, where Bauer was enticed to stay by Sir Joseph Banks, who gave him the astonishing annual salary of £300, for life, to paint plants at Kew at a time when English garden novelties were being artistically poached by L'Héritier in Paris. Bauer remained at Kew until his death in 1840 at the age of 82.

The vast majority of the resulting botanical drawings were never published – many were unfinished, and subsequent trimming and re-annotation mean that chronology and sources of the plants depicted are often impossible to establish. Though Bauer had little formal education he was regarded by Banks and Home as a scientific equal, and he was elected FRS in 1820. Bauer published several papers and three 'books', though two of the latter (on *Erica* and *Strelitzia*) have no text – the drawings themselves 'intended to answer itself any question a botanist can wish to ask'. Some of the drawings show important processes such as pollen germination, and others correctly interpret complex structures such as the staminal and stigmatic structures of *Asclepiadaceae*, the interpretation and clarity of depiction implying a clear understanding of theory. His work on rust fungi and plant pathology was also pioneering but, because most of these drawings were not published, either with or without explanatory text, they failed to contribute to scientific knowledge. In fact this led to problems, and John Lindley took up cudgels on Bauer's behalf, claiming that Robert Brown had failed to acknowledge the priority of Bauer's work on *Orchidaceae*, probably his favourite family. The implication of plagiarism was unjustified and Brown published a glowing tribute to the brothers and their scientific contribution in the second of his two great papers on *Rafflesia*. These papers are adorned with no fewer than 13 plates by Francis, and four of Ferdinand's last works, interpreted by the virtuosic engraving of James Basire – resulting in some of the most beautiful scientific plates ever made. This raises the question of how self-sufficient, as scientific statements, pictures without words can be (a question repeatedly revisited since the dawn of the Enlightenment, for example in the circle of Galileo and the Linceans in Rome). Sadly the answer was pointed out in 1844 by William Griffith, who learnt so much both from Brown and Bauer before his Indian travels: 'had he [Francis Bauer] been a writer and not a drawer, before 1800, in great probability we should have known nearly as much of embryogeny as we do now'. The artist's understanding may leap from the page, but it has to be elaborated in words.

As a result of Banks's generosity (and a curious episode involving Prince Albert), most of Francis Bauer's drawings are now in the Natural History Museum, London,

with a smaller collection in Göttingen (including a unique hand-coloured set of the anatomical prints bought after Bauer's death by Ernst August, King of Hanover, whose life, after an attack by his valet, had been saved by Sir Everard Home). A great debt is due to Professor Lack for making the richness of Francis Bauer's work accessible in this affordable publication.

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